

=====

Sequence Listing was accepted.

If you need help call the Patent Electronic Business Center at (866)  
217-9197 (toll free).

Reviewer: Anne Corrigan

Timestamp: [year=2011; month=7; day=1; hr=9; min=51; sec=2; ms=823; ]

=====

Application No: 10581814

Version No: 3.0

Input Set:

Output Set:

Started: 2011-06-23 15:09:10.399

Finished: 2011-06-23 15:09:11.655

Elapsed: 0 hr(s) 0 min(s) 1 sec(s) 256 ms

Total Warnings: 106

Total Errors: 0

No. of SeqIDs Defined: 106

Actual SeqID Count: 106

Error code	Error Description
W 213	Artificial or Unknown found in <213> in SEQ ID (1)
W 213	Artificial or Unknown found in <213> in SEQ ID (2)
W 213	Artificial or Unknown found in <213> in SEQ ID (3)
W 213	Artificial or Unknown found in <213> in SEQ ID (4)
W 213	Artificial or Unknown found in <213> in SEQ ID (5)
W 213	Artificial or Unknown found in <213> in SEQ ID (6)
W 213	Artificial or Unknown found in <213> in SEQ ID (7)
W 213	Artificial or Unknown found in <213> in SEQ ID (8)
W 213	Artificial or Unknown found in <213> in SEQ ID (9)
W 213	Artificial or Unknown found in <213> in SEQ ID (10)
W 213	Artificial or Unknown found in <213> in SEQ ID (11)
W 213	Artificial or Unknown found in <213> in SEQ ID (12)
W 213	Artificial or Unknown found in <213> in SEQ ID (13)
W 213	Artificial or Unknown found in <213> in SEQ ID (14)
W 213	Artificial or Unknown found in <213> in SEQ ID (15)
W 213	Artificial or Unknown found in <213> in SEQ ID (16)
W 213	Artificial or Unknown found in <213> in SEQ ID (17)
W 213	Artificial or Unknown found in <213> in SEQ ID (18)
W 213	Artificial or Unknown found in <213> in SEQ ID (19)
W 213	Artificial or Unknown found in <213> in SEQ ID (20)

**Input Set:**

**Output Set:**

**Started:** 2011-06-23 15:09:10.399  
**Finished:** 2011-06-23 15:09:11.655  
**Elapsed:** 0 hr(s) 0 min(s) 1 sec(s) 256 ms  
**Total Warnings:** 106  
**Total Errors:** 0  
**No. of SeqIDs Defined:** 106  
**Actual SeqID Count:** 106

Error code

Error Description

This error has occurred more than 20 times, will not be displayed

# SEQUENCE LISTING

<110> MARCHE, Patrice  
 JOUVIN-MARCHE, Evelyne  
 PASQUAL, Nicolas

<120> Method for Quantitative Evaluation of a Rearrangement or a  
 Targeted Genetic Recombination of an Individual and Uses Thereof

<130> 045636-5083

<140> 10581814

<141> 2011-06-23

<150> PCT/FR04/03115

<151> 2004-12-03

<150> FR 0314289

<151> 2003-12-05

<160> 106

<170> PatentIn version 3.1

<210> 1

<211> 26

<212> DNA

<213> Artificial sequence

<220>

<223> PCR primer

<400> 1

ggtcggttttt cttcattcct tagtcg

26

<210> 2

<211> 24

<212> DNA

<213> Artificial sequence

<220>

<223> PCR primer

<400> 2

tctcttcacg gctgctcac ctcc

24

<210> 3

<211> 22

<212> DNA

<213> Artificial sequence

<220>

<223> PCR primer

<400> 3  
tccccctccc attttccact cg 22

<210> 4  
<211> 26  
<212> DNA  
<213> Artificial sequence

<220>  
<223> PCR primer

<400> 4  
gcacttacac agacagctcc tccacc 26

<210> 5  
<211> 22  
<212> DNA  
<213> Artificial sequence

<220>  
<223> PCR primer

<400> 5  
caggaggaac cagagcccag tc 22

<210> 6  
<211> 23  
<212> DNA  
<213> Artificial sequence

<220>  
<223> PCR primer

<400> 6  
tggagtaggg cagggaggac agt 23

<210> 7  
<211> 27  
<212> DNA  
<213> Artificial sequence

<220>  
<223> PCR primer

<400> 7  
ggctgggaag tttggtgata tagtgtc 27

<210> 8  
<211> 24  
<212> DNA  
<213> Artificial sequence

<220>  
 <223> PCR primer  
  
 <400> 8  
 agcagccaaa tccttcagtc tcaa 24  
  
 <210> 9  
 <211> 28  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> PCR primer  
  
 <400> 9  
 aagacaaaaa ctccccatt gtgaaata 28  
  
 <210> 10  
 <211> 28  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> PCR primer  
  
 <400> 10  
 gccctcctga aaatgtgtaa agaaatgt 28  
  
 <210> 11  
 <211> 25  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> PCR primer  
  
 <400> 11  
 cttccccac tcccttcaaa cttac 25  
  
 <210> 12  
 <211> 20  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> PCR primer  
  
 <400> 12  
 agcacttgac ggcagcagca 20  
  
 <210> 13  
 <211> 22

<212> DNA  
<213> Artificial sequence  
  
<220>  
<223> PCR primer  
  
<400> 13  
tgccccgaga cctgataacc aa 22

<210> 14  
<211> 25  
<212> DNA  
<213> Artificial sequence  
  
<220>  
<223> PCR primer  
  
<400> 14  
tcagaacaag ctggaggcaa ctagg 25

<210> 15  
<211> 27  
<212> DNA  
<213> Artificial sequence  
  
<220>  
<223> PCR primer  
  
<400> 15  
ggaatagaaa gcgactcact caccagg 27

<210> 16  
<211> 25  
<212> DNA  
<213> Artificial sequence  
  
<220>  
<223> PCR primer  
  
<400> 16  
ccacttttag ctgagtgccct gtccc 25

<210> 17  
<211> 25  
<212> DNA  
<213> Artificial sequence  
  
<220>  
<223> PCR primer  
  
<400> 17  
ctgtctctgc aatgatgaaa tggcc 25

<210> 18  
<211> 21  
<212> DNA  
<213> Artificial sequence  
  
<220>  
<223> PCR primer  
  
<400> 18  
ggaaactctg ggcatgggca g 21

<210> 19  
<211> 22  
<212> DNA  
<213> Artificial sequence  
  
<220>  
<223> PCR primer  
  
<400> 19  
actgggcagg agattcgggt at 22

<210> 20  
<211> 25  
<212> DNA  
<213> Artificial sequence  
  
<220>  
<223> PCR primer  
  
<400> 20  
cgccccagat taactgatag ttgct 25

<210> 21  
<211> 24  
<212> DNA  
<213> Artificial sequence  
  
<220>  
<223> PCR primer  
  
<400> 21  
atactaaggg caggtgaggc tcca 24

<210> 22  
<211> 24  
<212> DNA  
<213> Artificial sequence  
  
<220>  
<223> probe



<400> 22  
tcgtttttct tcattcctta gtcg 24

<210> 23  
<211> 25  
<212> DNA  
<213> Artificial sequence

<220>  
<223> probe

<400> 23  
atgaaacaag accaaagact cactg 25

<210> 24  
<211> 19  
<212> DNA  
<213> Artificial sequence

<220>  
<223> probe

<400> 24  
tgaccagct tgacagcca 19

<210> 25  
<211> 22  
<212> DNA  
<213> Artificial sequence

<220>  
<223> probe

<400> 25  
ggcaatcgct gaagacagaa ag 22

<210> 26  
<211> 22  
<212> DNA  
<213> Artificial sequence

<220>  
<223> probe

<400> 26  
gagaacaggt gtaagtgccg cc 22

<210> 27  
<211> 24  
<212> DNA  
<213> Artificial sequence

<220>		
<223>	probe	
<400>	27	
ttggattcac	ggttaagaga	gttc 24
<210>	28	
<211>	24	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<223>	probe	
<400>	28	
tccagtccca	aaggtaatt	tctc 24
<210>	29	
<211>	21	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<223>	probe	
<400>	29	
ccgaagttga	gtgcataccc	g 21
<210>	30	
<211>	25	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<223>	probe	
<400>	30	
caaatcaag	gatggctaga	aacac 25
<210>	31	
<211>	23	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<223>	probe	
<400>	31	
cttccaaagt	atagcctccc	cag 23
<210>	32	
<211>	22	

<212>	DNA	
<213>	Artificial sequence	
<220>		
<223>	probe	
<400>	32	
	ggtgagtttg tttctctctc cc	22
<210>	33	
<211>	24	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<223>	probe	
<400>	33	
	cccaaaagta agtgctctcc tgcc	24
<210>	34	
<211>	22	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<223>	probe	
<400>	34	
	cggggagaag tggaaactct gg	22
<210>	35	
<211>	24	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<223>	probe	
<400>	35	
	tcagagttat tccttttcca aatg	24
<210>	36	
<211>	25	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<223>	probe	
<400>	36	
	cgccccagat taactgatag ttgct	25

<210> 37  
 <211> 19  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> probe  
  
 <400> 37  
 ggtccctgct ccaaactgc 19

<210> 38  
 <211> 50  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> sequence amplified by PCR  
  
 <400> 38  
 cttgagagat gctgctgtgt actactgcat cctgagagac gggggggggg 50

<210> 39  
 <211> 65  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> sequence amplified by PCR  
  
 <400> 39  
 ccttttgagg agctccagat gaaagactct gcctcttacc tctgtgctgt gaggaatggg 60  
 gggggg 65

<210> 40  
 <211> 41  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> sequence amplified by PCR  
  
 <400> 40  
 gcgatgtatt tctgtgctta catgagcccg gggggggggg g 41

<210> 41  
 <211> 328  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> sequence amplified by PCR

<400> 41  
tattctgtat ctgatgatgt ctttgagaac aggtgtaagt gccgccaaaa atgaagtgga 60  
gcagagtcct cagaacctga ctgcccagga aggagaattt atcacaaatca actgcagtta 120  
ctcggtagga ataagtgcct tacactggct gcaacagcat ccaggaggag gcattgtttc 180  
cttgtttatg ctgagctcag ggaagaagaa gcatggaaga ttaattgcca caataaacat 240  
acaggaaaag cacagctccc tgcacatcac agcctcccat cccagagact ctgccgtcta 300  
catctgtgct gtcagagggg gggggggg 328

<210> 42  
<211> 44  
<212> DNA  
<213> Artificial sequence

<220>  
<223> sequence amplified by PCR

<400> 42  
actcagccgt gtactactgt cttctgggag atgggggggg gggg 44

<210> 43  
<211> 162  
<212> DNA  
<213> Artificial sequence

<220>  
<223> sequence amplified by PCR

<400> 43  
acctggagca ggtctccagc ttgtgacgt atatTTTTTc aaatatggac atgaaacaag 60  
accaaagact cactgttcta ttgaataaaa aggataacat ctgtctctgc gcattgcaga 120  
caccagact ggggactcag ctatctactt ctgtgcagag ag 162

<210> 44  
<211> 215  
<212> DNA  
<213> Artificial sequence

<220>  
<223> sequence amplified by PCR

<220>  
<221> misc\_feature  
<222> (22)..(22)  
<223> N= A,T,G or C

<220>  
<221> misc\_feature  
<222> (80)..(82)  
<223> N= A,T,G or C

<220>  
<221> misc\_feature  
<222> (89)..(90)

<223> N= A,T,G or C

<220>

<221> misc\_feature

<222> (146)..(146)

<223> N= A,T,G or C

<220>

<221> misc\_feature

<222> (156)..(156)

<223> N= A,T,G or C

<220>

<221> misc\_feature

<222> (160)..(160)

<223> N= A,T,G or C

<220>

<221> misc\_feature

<222> (179)..(179)

<223> N= A,T,G or C

<220>

<221> misc\_feature

<222> (186)..(186)

<223> N= A,T,G or C

<400> 44

actatc	catc	gtctgt	tttca	cngtat	ctct	tctggt	atgt	gcaata	cccc	aacca	aggac	60
tccagc	tttct	cctga	agtan	nnatc	aggnn	ccacc	ctggt	taaagg	catc	aacgg	ttttg	120
aggct	gaatt	taaca	agagt	gaaac	ntcct	tccac	ntgan	gaaac	cctca	gcccc	atatna	180
gcgac	ncggc	tgagt	acttc	tgtg	ctgt	ga	gtgat					215

<210> 45

<211> 163

<212> DNA

<213> Artificial sequence

<220>

<223> sequence amplified by PCR

<400> 45

acctg	gagca	ggtct	ccagt	tgctg	acgta	tatttt	tttca	aatat	ggaca	tgaa	acaaga	60
ccaa	agactc	actgt	tctat	tgaat	aaaaa	ggata	aacat	ctgt	ctctgc	gcatt	gcaga	120
cacc	cagact	gggg	actcag	ctatc	tactt	ctgt	gcagag	agt				163

<210> 46

<211> 24

<212> DNA

<213> Artificial sequence

<220>

<223> PCR primer

<400> 46

gcaacatgct ggcgagcac ccac 24

<210> 47  
<211> 22  
<212> DNA  
<213> Artificial sequence

<220>  
<223> PCR primer

<400> 47  
atggctttgc agagcactct gg 22

<210> 48  
<211> 19  
<212> DNA  
<213> Artificial sequence

<220>  
<223> PCR primer

<400> 48  
gcctctgcac ccattctga 19

<210> 49  
<211> 24  
<212> DNA  
<213> Artificial sequence

<220>  
<223> PCR primer

<400> 49  
gaggatgtgg agcagagtct ttcc 24

<210> 50  
<211> 24  
<212> DNA  
<213> Artificial sequence

<220>  
<223> PCR primer

<400> 50  
cggccaccct gacctgcaac tata 24

<210> 51  
<211> 25  
<212> DNA  
<213> Artificial sequence

<220>

<223> PCR primer  
  
 <400> 51  
 gggacccag cagggagacg ttgcc 25  
  
 <210> 52  
 <211> 24  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> PCR primer  
  
 <400> 52  
 atgctcctgt tgctcatacc agtg 24  
  
 <210> 53  
 <211> 24  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> PCR primer  
  
 <400> 53  
 cctgaaagcc acgaaggctg atga 24  
  
 <210> 54  
 <211> 21  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> PCR primer  
  
 <400> 54  
 gcatctgacg accttcttgg t 21  
  
 <210> 55  
 <211> 24  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> PCR primer  
  
 <400> 55  
 ccatgatgcg gggactggag ttgc 24  
  
 <210> 56  
 <211> 24  
 <212> DNA



<213> Artificial sequence  
 <220>  
 <223> PCR primer  
 <400> 56  
 cattcgttca aatgtgggcg aaaa 24

<210> 57  
 <211> 24  
 <212> DNA  
 <213> Artificial sequence  
 <220>  
 <223> PCR primer  
 <400> 57  
 cagaagataa ctcaaaccga acca 24

<210> 58  
 <211> 21  
 <212> DNA  
 <213> Artificial sequence  
 <220>  
 <223> PCR primer  
 <400> 58  
 agagtgactc agcccagagaa g 21

<210> 59  
 <211> 24  
 <212> DNA  
 <213> Artificial sequence  
 <220>  
 <223> PCR primer  
 <400> 59  
 ccgggcagca gacactgctt cttta 24

<210> 60  
 <211> 24  
 <212> DNA  
 <213> Artificial sequence  
 <220>  
 <223> PCR primer  
 <400> 60  
 tcgtcgggaac tcttttgatg agca 24

<210> 61  
<211> 21  
<212> DNA  
<213> Artificial sequence  
  
<220>  
<223> PCR primer  
  
<400> 61  
gtcttgtggc ttcagcttgg c 21

<210> 62  
<211> 24  
<212> DNA  
<213> Artificial sequence  
  
<220>  
<223> PCR primer  
  
<400> 62  
tgcttcgctg gataaatcat cagg 24

<210> 63  
<211> 24  
<212> DNA  
<213> Artificial sequence  
  
<220>  
<223> PCR primer  
  
<400> 63  
gggagctctg ctggggctct tgag 24

<210> 64  
<211> 20  
<212> DNA  
<213> Artificial sequence  
  
<220>  
<223> PCR primer  
  
<400> 64  
gcagcttccc ttccagcaat 20

<210> 65  
<211> 24  
<212> DNA  
<213> Artificial sequence  
  
<220>  
<223> PCR primer  
  
<400> 65

ggagaggact tcaccacgta ctgc 24

<210> 66  
<211> 21  
<212> DNA  
<213> Artificial sequence

<220>  
<223> PCR primer

<400> 66  
ggctggtggc aagagtaact g 21

<210> 67  
<211> 24  
<212> DNA  
<213> Artificial sequence

<220>  
<223> PCR primer

<400> 67  
cactgcggcc cagcctggtg atac 24

<210> 68  
<211> 24  
<212> DNA  
<213> Artificial sequence

<220>  
<223> PCR primer

<400> 68  
cagcaagtta agcaaaattc acca 24

<210> 69  
<211> 22  
<212> DNA  
<213> Artificial sequence

<220>  
<223> PCR primer

<400> 69  
gccgtgatcc tccgagaagg gg 22

<210> 70  
<211> 24  
<212> DNA  
<213> Artificial sequence

<220>

<223> PCR primer  
  
 <400> 70  
 tgatgatgct acagaaaggt gggg 24  
  
 <210> 71  
 <211> 27  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> PCR primer  
  
 <400> 71  
 ggctgggaag tttggtgata tagtgtc 27  
  
 <210> 72  
 <211> 21  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> PCR primer  
  
 <400> 72  
 atgatgaagt gtccacaggc t 21  
  
 <210> 73  
 <211> 24  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> PCR primer  
  
 <400> 73  
 agcagccaaa tccttcagtc tcaa 24  
  
 <210> 74  
 <211> 28  
 <212> DNA  
 <213> Artificial sequence  
  
 <220>  
 <223> PCR primer  
  
 <400> 74  
 aagacaaaaa ctccccatt gtgaaata 28  
  
 <210> 75  
 <211> 20  
 <212> DNA

<213>	Artificial sequence	
<220>		
<223>	PCR primer	
<400>	75	
	cagagttccc cggaccagac	20
<210>	76	
<211>	7	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<223>	hv gene fragment	
<400>	76	
	cacagtg	7
<210>	77	
<211>	23	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<223>	hv gene fragment	
<400>	77	
	actatgaggc ctccttaact gtg	23
<210>	78	
<211>	9	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<223>	hv gene fragment	
<400>	78	
	cctaaattc	9
<210>	79	
<211>	7	
<212>	DNA	
<213>	Artificial sequence	
<220>		
<223>	hv gene fragment	
<400>	79	
	cacggtg	7

<210> 80  
<211> 23  
<212> DNA  
<213> Artificial sequence  
  
<220>  
<223> hv gene fragment  
  
<400> 80  
actatgaggc ctcttttagct gca 23

<210> 81  
<211> 7  
<212> DNA  
<213> Artificial sequence  
  
<220>  
<223> hv gene fragment  
  
<400> 81  
cacagag 7

<210> 82  
<211> 23  
<212> DNA  
<213> Artificial sequence  
  
<220>  
<223> hv gene fragment  
  
<400> 82  
gcaggggaacc catgaagagc tga 23

<210> 83  
<211> 9  
<212> DNA  
<213> Artificial sequence  
  
<220>  
<223> hv gene fragment  
  
<400> 83  
acagaaaca 9

<210> 84  
<211> 7  
<212> DNA  
<213> Artificial sequence  
  
<220>  
<223> hv gene fragment  
  
<400> 84

cacactg

7

<210> 85

<211> 23

<212> DNA

<213> Artificial sequence

<220>

<223> hv gene fragment

<400> 85

ataggggctg caggggggagc aga

23

<210> 86

<211> 9

<212> DNA

<213> Artificial sequence

<220>

<223> hv gene fragment

<400> 86

acacaaact

9

<210> 87

<211> 7

<212> DNA

<213> Artificial sequence

<220>

<223> hv gene fragment

<400> 87

cacattg

7

<210> 8